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**Program Evaluation of Affordable Housing Projects for Educators:
Pathways to Success
by
Giulia C. Seminatore**

A Thesis Quality Research Project
Submitted in Partial Fulfillment of the
Requirements for the
Masters' Degree in

PUBLIC ADMINISTRATION

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San Jose State University
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BACKGROUND

Housing is a basic need of all people that, over recent years, has become harder to achieve affordably for many individuals in the United States (McClure, 2019). More costly areas, such as the Bay Area in Northern California, have experienced rent increases of 57% since 2012, from an average of \$1,623 for a two-bedroom unit in Santa Clara County to \$2,839 in 2019 (Department of Housing and Urban Development, 2012; 2019). At the same time, salaries in California Bay Area school districts have more commonly seen 25% to 30% increases among staff over the same time period (CDE, 2012; CDE, 2018). Due to this developing disparity between wages and housing costs, employees in lower paid occupations, such as teachers, have found it difficult to continue living in the communities where they work. A survey conducted in 2013 found that one of the biggest indicators of whether a teacher would stay in the area was access to affordable housing (Palomino, 2016). In response to this issue, school districts and other organizations across the nation have implemented their own solutions to the problem by constructing affordable or subsidized housing units specifically for school district staff.

Research Question

Research was conducted to answer the question, what are the successful pathways to the creation of school district-driven affordable housing projects to enhance recruitment and retention of teachers and other school district staff? This research is based on a program evaluation of four current housing developments for educators and school district staff, and describes successful models for implementation that can be followed by other interested school districts or organizations. For the purpose of this research, successful is defined as projects that were able to secure land, funding and public support during the planning phase, and house district workforce upon implementation.

This research analyzes four completed school district employee housing programs: Casa Del Maestro (Santa Clara, California), Sage Park (Los Angeles, California), Teachers Village (Newark, New Jersey), and Miller's Court (Baltimore, Maryland). The four programs were selected to represent various U.S. areas geographically, demographically, and economically, and districts of varying size.

Not all proposed projects are built due to an array of issues that will be described. The findings discuss how the four programs have been implemented, whether the programs successfully achieved their goal of creating teacher housing in their area, and lessons learned from proposed programs that were not implemented. The analysis evaluates the relationship between increasing housing costs and low teacher salaries, leading to difficulties with recruitment and retention. To combat this problem, school districts and developers have created teacher housing projects to help subsidize the cost of living for local educators. The programs aim to encourage school district staff, mainly teachers, to remain in their positions, and provide the opportunity for educators to live in the community where they teach.

Teacher Recruitment and Retention

The nationwide teacher shortage is a growing problem for many school districts. High turnover rates for teachers are costly to school districts, an estimated \$10,000 to \$20,000 per teacher in cities (Milanowski & Odden, 2007). Between the 2016 and 2017 academic years, an average turnover rate of 17.5% was seen among teachers in California. Studies predict an increase in student population in the United States of an estimated 3 million over the next decade. Districts must find teachers to meet the demand created by the growth in student population combined with an annual average 8% attrition rate (Darling-Hammond et al., 2018). California experiences the highest turnover rates among mathematics, sciences, and English

teachers. According to a study completed in 2016, 75% of 211 participating California school districts reported a teacher shortage (Podolsky & Sutchter, 2016). Retirements cause less than one-third of the departures from the teaching profession each year. Southern states have a higher turnover rate compared to other U.S. regions, as do cities when compared to suburban or rural districts (Darling-Hammond et al., 2018).

Turnover and leaving the profession is higher in teachers than in other professions, which cannot solely be explained by teacher retirement (Ingersoll, 2001). Additionally, teachers who reported higher levels of satisfaction with their compensation were found to be twice as likely to remain in teaching (Hughes, 2012). Compensation is not satisfactory when it is not enough to pay the cost of housing in the district.

Teachers and Student Debt

In addition to a lack of access to affordable housing that teachers face, government support for preparation and retention of education professionals has dwindled. Research has shown that teacher preparation programs and teacher pipelines are vital to the continuation of preparation of high-quality teaching professionals (Goldhaber & Cowan, 2014). Yet since 2003-04, many programs providing financial support or incentives for teacher education have been suspended or eliminated (Darling-Hammond et al., 2017). The Teacher Recruitment Incentive Program (TRIP) and the California Center for Teaching Careers (CalTeach) both established centers for recruitment, information, and assistance with hiring for school districts. Both were suspended in 2004. The Governor's Teaching Fellowship, Cal Grant T, Mathematics Initiative for Teaching, and the Teaching as a Priority (TAP) Block Grant were all tuition assistance programs for students entering teacher preparation programs, often in exchange for a commitment to teach in a low-performing or inner city school district. All three programs were

suspended or discontinued in 2004. Another option was the Teacher Retention Tax Credit, which allowed teachers to claim a tax credit when filing income taxes based on income and years of service. This initiative was also suspended in 2004. Lastly, the Assumption Program of Loans for Education (APLE) was a program that provided loan forgiveness to students who agreed to work in areas where there was a teacher shortage. The program ran longer than any of the others, only being suspended in 2012-13.

In 2007, Congress established the TEACH grant program. The program aims to increase the number of teachers available by offering a \$4,000 per year grant in exchange for teaching in a high-need field. The program is still in effect, but a 2016 study found that 63% of recipients had converted their grant to a loan, likely due to the financial benefit not being enough to offset the cost of schooling (Barkowski et al., 2018).

The loss of financial support for teacher education has resulted in students leaving college with large student loan debt, which further compromises their ability to afford market rate housing in many areas of the country. Teachers carrying student debt are unable to qualify for additional loans, and are often unable to qualify for rental housing, because their debt to income ratio is already too high (Hembree, 2018). Districts that are able to offer subsidized housing may become more attractive employers by enabling new teachers to devote more of their income to paying down their educational debt.

Salaries and Housing

The U.S. Department of Housing and Urban Development (HUD) defines income levels for each state and county that qualify families for below market rate housing programs. Very low-income level (VLIL) is a household that makes 50% of the media area income, and low-income level (LIL) is 80% of the area median income (Department of Housing and Urban

Development, n.d.). With a median area income of \$141,600 for a 4-person family in Santa Clara County, California, a family of four would be considered low-income with an income of \$112,150 or less, and be considered very low-income with an income of \$78,950 or less.

According to the California Department of Education (2019), the average midrange teacher's annual salary in California is \$63,243 to \$80,151. Teachers can make as little as \$43,574 in their first year.

In an FY2019 local rent survey of the San Jose-Sunnyvale-Santa Clara standard metropolitan statistical area (SMSA), fair market rent for a two-bedroom apartment was \$2,839 (Department of Housing and Urban Development, 2019). While HUD standards state that housing should cost a household no more than 30% of its income to be considered affordable, the cost of rent can account for more than 50% of a teacher's salary in the Bay Area. A Bay Area household would have to make a minimum of \$102,000 per year to afford the market rent for a 2-bedroom apartment at the HUD standard of 30% of income. Housing in the Bay Area has been an issue for individuals in all occupations, as the prices to rent and buy have skyrocketed (Brinklow, 2018). Teachers around the Bay Area feel the pressure of trying to live locally, while being unable to afford to live in the area where they work (Angst, 2019).

Teachers often make a salary that is out of the maximum range to qualify for a standard affordable housing unit in the Bay Area, but still does not allow for saving to purchase a home in the future. The City of San Jose (n.d.) reported that the Median Home Price in Santa Clara County is \$1,300,000, an increase of more than 34% from February 2017 (Civil Grand Jury of Santa Clara County, 2018), and Santa Clara County has a median area income of \$131,400 per household. To qualify for affordable housing, the household income limit is typically set between 30% to 50% of the average median income (AMI) for the area (California Department

of Housing and Community Development, Division of Housing Policy Development, 2019). For Santa Clara County, qualifying individuals in a household of 2 must make between \$35,150 and \$83,150 to be considered LIL, automatically disqualifying many teaching professionals in the area from standard affordable housing. The issue remains that new teachers may qualify for affordable housing at first, but will quickly lose their spot as they stay in their position and earn raises that rise above the low-income threshold, and seasoned teachers will not qualify for affordable housing at all. Yet their salaries do not support market rate rents without being rent burdened.

The federal government considers a person rent burdened if he or she pays more than 30% of his salary for shelter. First year teachers are unable to afford to rent a one-bedroom apartment in nearly 40% of the 680 districts in California. Furthermore, teachers earning an average salary in nearly 90% of the districts did not earn enough to rent a lower end market rate two-bedroom apartment (Allen & Willis, 2019). Between the years of 2013 and 2015, Santa Clara County saw a 56.4% increase in vacancies for education-related positions in the county (Darling-Hammond, Sutchter, and Carver-Thomas, 2017). Table 1 in the Findings shows school districts with and without teacher housing developments, and the cost burden of renting a 2-bedroom apartment for a teacher making an average salary in the district.

Additional issues come with the presence and expansion of large tech companies like Google and Apple. As of 2018, Google owned \$7.5 billion and Apple owned \$9 billion in taxable real estate in Santa Clara County (Castaneda, 2019). Companies continue to buy up land and build new campuses, and with this influx of employees with families there is an increase in need for housing in the area. Lower paid individuals can be pushed out of housing opportunities when competing with higher paid employees of Google, Apple and other high-tech companies.

Increase in the demand for housing may also directly affect the housing market, causing a spike in prices of housing in the area (Kendall, 2019b). This only further removes teachers and other district workforce employees from the chance of owning a home or finding a reasonably priced apartment near where they work.

ADUs and TODs as Affordable Housing Alternatives

Other affordable housing options in some states include Accessory Dwelling Units (ADU) and Transit-Oriented Developments (TOD). Because both approaches increase the supply of affordable housing units, these strategies may provide teachers with acceptable housing options.

Accessory dwelling units (ADUs) are additional living quarters constructed on single-family lots. They may be free-standing bungalows, converted garages or conversions of interior dwelling spaces. They provide a lower cost alternative to single-family housing with one house per lot, and a lower density alternative to multifamily housing. Recently, many states have relaxed their regulations of the construction of ADUs, and adopted ADU ordinances to increase their housing supply. Construction of ADUs relies on local homeowners to build them on their property (Department of Housing and Urban Development, 2008).

The Transit-Oriented Development (TOD) Housing Program encourages public transit use by funding developments in areas within a one-quarter mile of transit stations. The program provides low-interest loans for the construction of rental housing units that include affordable housing units near transit stations. This incentivizes developers to build developments in largely metropolitan areas, and encourages public transit use by low- and moderate-income individuals (Department of Housing and Community Development, n.d.a.).

Teacher Housing Developments

As more school districts seek to build affordable housing units for the school district workforce to combat decreased teacher retention rates and rising housing costs, the information developed in this research can be used by school districts as they begin planning and developing their units. Across the country, school districts have begun to allot money to build affordable housing, specifically for teachers and other school district staff, in order keep them from leaving the area, or to help to shortening their commute. Local governments and school districts are using different approaches to create and develop the teacher housing programs (Lambert & Willis, 2019), some raising more community backlash than others (San Jose Unified School District, n.d.), and using different types of funding sources. The intention of building the housing units is to aid school district employees who face challenges in securing affordable housing in the area where they work, and to incentivize them to remain living locally, despite the unaffordability of housing (California Legislative Information, n.d.).

Building more affordable housing may appear to be the solution to the problem presented. However, the cost of building affordable housing units often acts as a barrier for developers. In California, it costs an average of \$450,000 per subsidized unit to build affordable housing (Kang, 2019). In the most expensive areas of California, San Francisco for example, the true cost is \$750,000 per subsidized unit (Fuller, 2020). The cost is higher due to the high cost of land and labor in California. The Bureau of Labor Statistics reports that the price of raw materials – those required to build a housing development- have risen by 23.9% from 2009 – 2019 (Bureau of Labor Statistics, 2020).

For more expensive locations, such as the Bay Area, making housing available for school district staff can serve as a solution to an impending and growing teacher recruitment and

retention problem. Previous research has found that first year teacher retention rates are low across the US, and that teacher effectiveness and experience have a large impact on teacher retention (Papay et al., 2017). Residents, including teachers, are forced to weigh the benefits of staying in the Bay Area against the high cost of housing.

Taking on the development and implementation of a teacher housing project can be a costly investment for both the district or developer and/or the community, depending on the funding structure. Communities that are considering implementing a teacher housing program may benefit from reviewing and comparing what has already been done, and what has worked well for other areas. This can provide potential routes to implementation of a successful teacher housing development.

The needs across districts vary substantially, and districts need to consider their employees when implementing policies or projects. In building all types of affordable housing, developers also must consider the sustainability of the project and the ability to continue to fund the unit at a lower than the fair market value rent (Gan et al, 2017). Without a plan for sustainability, the project may deteriorate when there is still a need for it.

Hurdles to Development: Land, Funding and Community Support

Three major hurdles are faced when proposing and implementing any affordable housing development. These include finding land, securing funding, and gaining political and community support. A housing development for teachers may encounter the same three challenges.

Land

Teacher housing projects may have several options for land: district or city-owned land, donated land, mixed use land, or purchased land. In selecting a location, districts or developers will want

to consider the convenience of the location, potential for growth if needed, environmental factors, density of the area, and price or affordability of the land, if being purchased.

Project developers must also consider what development processes correspond to that location. If it is district-owned land, there is no acquisition cost. Purchased land or donated land may be expensive. Unless the land is already zoned for multi-family residential use, a change in zoning may be required, which can cost time and money. For example, in San Jose, California, the rezoning process can take 4 to 6 months. It requires a preliminary review, planning staff review, input from other departments, environmental review, a public hearing, planning commission hearing, and city council hearings before the land can be rezoned for another use. This process requires significant time and expense on the applicant's part, and can result in a denial (City of San Jose, 2006).

Funding

Securing adequate funding is another step towards program implementation. Districts and/or developers can find funding through HUD for affordable housing (should they choose to limit income level eligibility), district bonds, city and state loans, private donations, tax credits, and other locally available resources related to affordable housing.

Planning for funding a multifamily development project can incorporate different financial structures. Developers can use generally available low-income housing programs through HUD, such as Low-Income Housing Tax Credits (LIHTC) or New Market Tax Credits (NMTC). However, since there is limited funding each year for these programs, the teacher housing may be perceived as competing with the larger low income community for these scarce resources.

LIHTC is a tax incentive for developers to construct affordable housing for low-income households. It was enacted through the 1986 Tax Reform Act, and enables the construction of over 110,000 affordable rental units per year. In order to qualify for the program, the development must meet the income test one of the three ways: 1) at least 20% of project units must be occupied by tenants with an income of 50% or less of area median income (AMI); 2) 40% of units are occupied by tenants with income of 60% or less of AMI; or 3) 40% of units are occupied by tenants with an income of no more than 60% of AMI and no tenants have an income greater than 80% of the AMI. Developers often sell the tax credits to investors to fund their projects (Tax Policy Center, n.d.a.). NMTC was created in 2000 and authorizes the distribution of tax credits to investors who invest in low-income housing projects. Investors can claim the tax credits over seven years, claiming part of their total investment each year (Tax Policy Center, n.d.b.).

Districts can also use other financial strategies for their teacher housing projects. They can create bonds to help fund the projects, or seek out loans from the city, county, or state. Private donations are often incorporated into the funding structure as businesses consider their social responsibility to the community they serve. The repayment terms will vary depending on the agreement, and districts/developers must consider sustainability of the financing structure when determining rent for tenants.

Community Support

A last consideration in developing a housing program is developing political and community support. As has been the case in many failed projects, community support of the development can halt the project, or propel it to completion. Opposition can arise out of issues with location, changes to school structure, financial consequences to the community, traffic, or

issues with funding strategies. For example, programs have the option to use Low-Income Housing Tax Credits to finance a development. However, with the usage of LIHTC and other opportunities by school districts, greater competition occurs between the school districts and others providing low income housing for the general public, due to limited existing housing resources, leading to greater competition for receiving certain financial benefits (California Legislative Information, n.d.).

In California, affordable housing projects for teachers have been constructed in San Mateo, Los Angeles, and Santa Clara, with many more projects in the approval stages across the state (Lambert & Willis, 2019). School districts have found themselves facing roadblocks in getting affordable housing projects off the ground due to lack of funding, and difficulty garnering political support, among other issues. When creating the project from scratch independently, the school district must find a way to fund the units, locate a suitable place to build them, allow for public input, and create a plan for sustainability of funding, while incorporating the cost of maintenance and upkeep of the units. Los Angeles Unified School District (LAUSD) has built 3 affordable housing developments for district employees, although teachers generally make more than the income limits of the units (Los Angeles Unified School District, n.d.). Other districts, such as Mountain View-Whisman School District (Angst, 2019) and San Jose Unified School District (San Jose Unified School District, n.d.), have faced difficulties in getting projects off the ground due to lack of community support and insufficient funding. Cupertino School District began planning to build housing units for teachers on district-owned property in December of 2015, but faced community concerns about long-term growth in the district, overcapacity, and the availability of the site for future school use, and voted to discontinue the project by June of 2016 (Mercury News, 2016).

Private companies have recently expressed an interest in contributing to affordable housing projects for teachers as part of their social duty, also often referred to as “corporate citizenship” (Castaneda, 2019). Within the past year, Facebook, Apple, and Google have all pledged money, totaling \$3.5 billion, to fund affordable housing projects in Silicon Valley (Kendall, 2019b). Facebook pledged \$25 million to build apartments solely for teachers (Kendall, 2019a). The project will be a collaboration between Santa Clara County, which donated a 1.5 acre piece of land and \$6 million to the endeavor, the city of Palo Alto, which is contributing \$3 million, and surrounding school districts in the area (Mountain View-Whisman, Palo Alto Unified, Mountain View Los Altos, Foothill-De Anza Community College, and Los Altos). Facebook previously funded a pilot project for affordable housing near its Menlo Park headquarters. However, the pilot is set to end in 2022, when it will move all the current tenants to the new units built from the new collaborative project. The new site will consist of 90 to 120 apartment units for teachers and school employees working in the area, and will charge occupants no more than 30% of their income in rent (Kendall, 2019a).

California Housing Legislation

In 2017, the California Housing Package was approved to help increase the supply of residences available to meet the demand of households in California (California Department of Housing and Community Development, n.d.). Table 1 outlines the included legislation and its purpose.

Table 1. 2017 California Housing Package Legislation

| Housing Bill | Code Sections | Purpose |
|---------------------|---|--|
| SB 50 | 65589.5, 65913.5-65913.6, 65918.50 of the Government Code, relating to housing | Allows denser development near transit stations |
| SB 35 | 65400, 65582.1 of the Government Code, relating to housing | Streamlined approval process for housing developments |
| AB 73 | 65582.1, 66200-66210 of the Government Code, relating to land use 21155.10-21155.11 of the Public Resources Code, relating to land use | Financial incentives for zoning overlay |
| SB 540 | 65620-65624 of the Government Code, relating to land use | State funding to for housing development with minimal environmental review |
| AB 678 | 65589.5 of the Government Code, relating to housing | Increase documentation for local agency to defend denial of an affordable housing development |
| AB 1515 | 65589.5 of the Government code, relating to land use | Housing development must conform to local land use requirements |
| AB 72 | 1371.30, 1371.31, and 1371.9 of Health and Safety Code, 10112.8, 10112.81, and 10112.82 of the Insurance Code | Department of Housing and Community Development can find a development out of compliance with state housing |
| AB 1397 | 65580, 65583, and 65583.2 of the Government Code, relating to housing | Cities must zone their share of regional housing needs |
| SB 166 | 65863 of the Government Code, relating to land use | City or county must identify additional sites for low-income housing when land designated for low income is used for market rate housing |
| AB 879 | 16170, 18010, 27585, 30800, 16531 and 16532 of the Penal Code | Updates to housing element and annual reporting requirements related to housing |
| SB 2 | 27388.1, 50470 of the Health and Safety Code, relating to housing | Fee on real estate documents excluding sales for funding affordable housing |
| SB 3 | 245.5, 246, and 1182.12 of the Labor Code, relating to labor | \$4 billion in general obligation bond to be used to fund housing |
| AB 1505 | 47604.5, 47605, 47605.6, 47607, 47607.3, 47607.5, 47632, 47605.9, 47607.8, 47605.4, 47607.2, and 47612.7 of the Education Code | Legislative body of city or county is authorized to require low income housing when approving housing development |
| AB 1521 | 65863.10 and 65863.11 of the Government Code, relating to land use | Seller of subsidized housing development must accept offer if requirements are met |
| AB 571 | 10003, 10202 of the Elections Code 85301, 85305, 85306, 85307, 85315, 85316, 85317, 85318, and 85702.5 to, the Government Code, relating to the Political Reform Act of 1974 | Updates to farmworker housing tax credit |

Source: California Department of Housing and Community Development, n.d.

Among the laws in the 2017 California Housing Package is SB 50, Sections 65589.5, 65913.5-65913.6, 65918.50 of the Government Code relating to housing, which allows for denser development near transit stations, as is needed in areas such as Santa Clara County. However, these units serve the whole population, and teachers and school district staff may or may not be successful in competing for a unit among other members of the general public. Another law from the housing package creates a streamlined process for cities/counties that have

not met their housing targets for the year to get approval for building below market rate housing quickly. According to the California Department of Housing and Community Development, (n.d.), the state averages less than 80,000 new homes per year, which is less than 50% of the residential units needed to house the current population.

Another important bill put in place by the 2017 California Housing Package is SB 35. It streamlined the permit approval process for affordable housing developments through the use of ministerial permits (California Legislature, 2017). A discretionary permit is one that requires a governing body to review and approve the permit. An application is submitted and reviewed, then approved or denied. A ministerial permit only requires a staff member to determine that the application conforms with ordinances and regulations (County of San Luis Obispo, 2018). By switching to the use of ministerial permits as opposed to discretionary, the process of approval is much quicker from application to approval, so long as all federal and state laws and local ordinances are complied with.

Santa Clara County passed Measure A in 2016 to fund the development of 4,800 affordable housing units over 10 years, for the general population, one-third of which had already been built by 2019 (Nguyen, 2019). Measure A would allow Santa Clara County to borrow up to \$950 million to issue bonds to provide affordable housing for low-income individuals with incomes no higher than 80% of the area median income, and moderate-income individuals with incomes between 80% and 120% of the area median income, among other vulnerable populations (Balletopedia, 2016). The passage of this measure reflected the understanding by county voters of the need to provide enough affordable housing and keep people from living on the streets. The moderate income units, if developed, could also benefit teacher households.

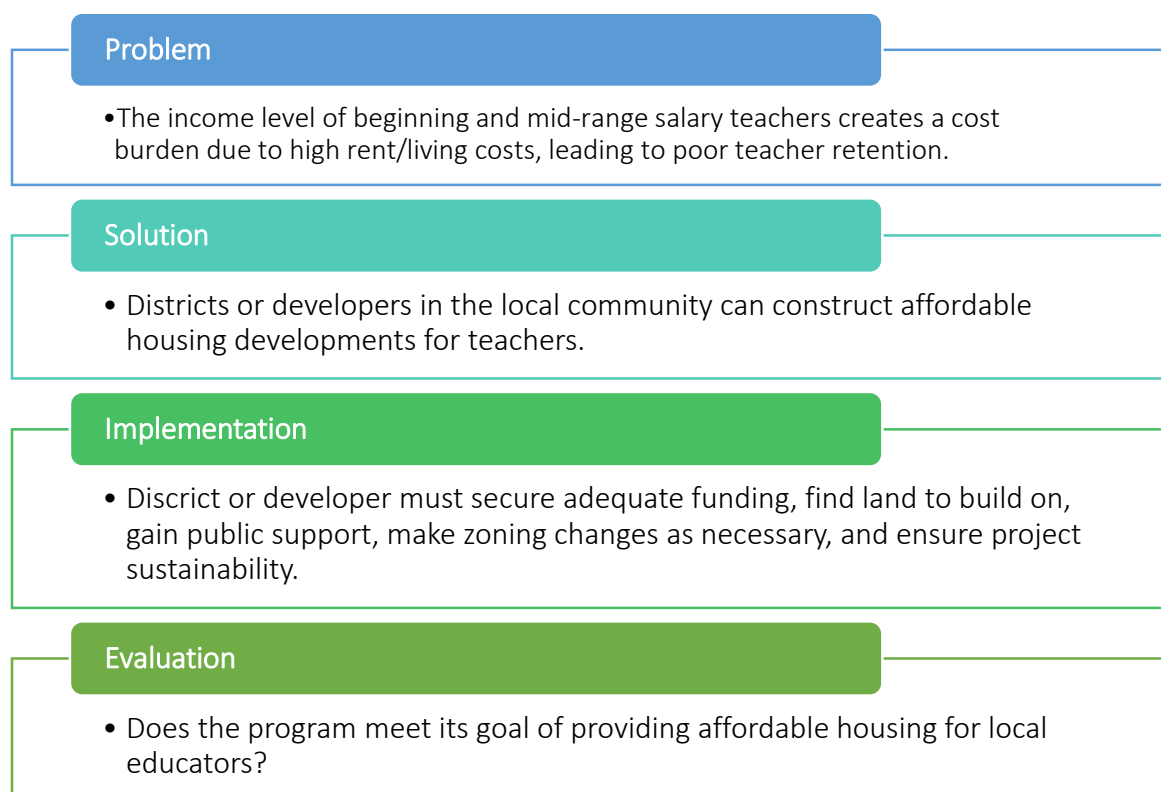
In 2016, SB 1413, also known as the Teacher Housing Act of 2016, was passed in California. The law aimed to create affordable housing for teachers and school district employees by allowing the use of district owned land to build housing. Through SB 1413, school districts are now able to use state and federal funds to build housing, and work towards establishing local partnerships with businesses to fund housing projects specifically for their staff (National Housing & Rehabilitation Association, 2016). The Teacher Housing Act of 2016 also allows districts to use Low Income Housing Tax Credits (LIHTC) to fund housing programs restricted to only teachers and other district employees. Some districts have elected to use the credits, while others have found other avenues to building developments, such as partnering with development nonprofits or securing funding from private companies.

Other government programs that have been enacted to support housing for teachers and other essential occupations at the federal and state levels have not been sustained adequately. The Department of Housing and Urban Development (n.d.) runs the Good Neighbor Next Door Program, providing a 50% discount on eligible homes to law enforcement, teachers, firefighters, and emergency medical technicians (EMT). The homes are in designated revitalization areas and the owner must commit to live in the property for 36 months. The program has good intentions, but there are currently no listings available in Santa Clara County.

METHODOLOGY

This report is a program analysis of completed affordable housing projects for educators, to highlight best practices for implementation of teacher housing projects. The research focuses on four completed affordable housing projects with units specifically for educators in their local area in California, Maryland, and New Jersey. Current programs were analyzed based on securing funding and local support, sustainability of development, affordability for teachers, and the ability of the project to meet the goal of housing educators in the area. The intent of the research is to present options for districts that may be interested in creating teacher housing, demonstrating implementation and accomplishing the goal of the project. Figure 1 below depicts the logic model used for analysis of the four completed developments. The research qualifies for an IRB exclusion because there are no human subjects used.

FIGURE 1. Program Analysis Logic Model



To conduct the research, data was collected from four (4) completed teacher housing projects, separated out by initiating entity (district-led and developer-led). The four completed projects are Casa Del Maestro (Santa Clara, California), Sage Park (Los Angeles, California), Teachers Village (Newark, New Jersey), and Miller's Court (Baltimore, Maryland). Casa Del Maestro and Sage Park are district-led developments, while Teachers Village and Miller's Court are developer-led projects. The four projects correspond to five (5) area school districts: Santa Clara Unified School District, Los Angeles Unified School District, Newark Public School District, Baltimore City Public Schools, and Baltimore County Public Schools. The research focused on factors affecting implementation and development, including financing structure, rent as a percentage of local income level, development's occupancy level, eligibility requirements, oversight structure, average rental price of the area, and available amenities. This research determined successful methods for implementation as found from the four projects analyzed, and identifies barriers to implementation and necessary changes to allow implementation of more units for educators.

LITERATURE REVIEW

Housing Crisis

Housing construction has barely been able to keep up with household growth in the United States since 2011. In 2018, the vacancy rate reached its lowest point since 1994 to 4.4% (Joint Center for Housing Studies of Harvard University, 2019). Currently, there is a national shortage of at least 7 million affordable homes to house 11 million families in the U.S. that fall into the extremely low-income category (National Low Income Housing Coalition, n.d.). In 2010, the U.S. had a deficit of 5.1 million affordable housing units across the nation (Enterprise Community Partners, Inc., 2014). Since 2011, the number of available low rent units in the United States has decreased (Joint Center for Housing Studies of Harvard University, 2019). A low stock of affordable housing developments can largely be attributed to the cost of building housing. A report by the Federal Reserve Bank of Minneapolis (Feldman, 2002) noted that a main contributor to lack of affordable housing is low income levels that cause many individuals to fall into low income categories. This means that building more affordable housing may not necessarily be a long term solution, and providing government funding to incentivize building does not solve the larger economic problem caused by poverty. Low to moderate income individuals, such as teachers, are forced to compete for available low-income units or be cost-burdened by fair market price rent. Government entities may still confront the issue through policy change, which can be conducted either through income subsidies for low-income individuals, or building affordable subsidized housing (Feldman, 2002).

Teacher Recruitment and Retention

Whether teachers choose to stay in their positions is influenced by many factors. Studies have shown that lack of support is a large indicator of low teacher retention (Ingersoll, 2001).

Ensuring that teachers are properly acclimated and supported is essential during the critical transition time to a new community and environment (Lemke, 1994). Studies have also indicated that teachers leaving their first position in the education field are less likely to leave the profession if average teacher salaries are high (Theobald & Gritz, 1996). If school districts elect not to raise teacher salaries to encourage retention, other creative incentivizing avenues are available.

Creating a system of attracting teachers and encouraging them to retain their position consists of a collaboration of programs and services by school district leadership, local organizations, and community members to provide new teachers with enough information about the area to incentivize them to live there (Harmon, 2001). In the Department of Housing and Urban Development's 1991 report, it was noted that middle-income workers, including teachers, often live miles from the community they work in due to lack of ability to find affordable housing. The average rate of turnover in the education field is 13.2% and can be compared to an 11% turnover rate in other professions (Bland et al., 2014). Selling the positive aspects of a school and area helps attract and retain teachers (Horn, 1985). Seifert (1985) suggests three activities for retaining teachers: 1) direct impact activities (including raises and local volunteering activities); 2) long range growth activities (including professional development and raises associated with high performance); and 3) motivational strategies (including assistance with housing, tuition or other professional organization reimbursement). Individuals pursuing a career in education can expect a lower level of earnings, which may deter some from entering the teaching profession (Bland et al., 2014).

Studies have also found that not living in the community where an employee works has consequences. A longer commute time may contribute to lower employee work outputs and

absenteeism. The effects of commute time on an employee's performance are determined by both the job itself and the residence choices of the individual. (Kim, 2008). This effect can be seen on daily labor supply when individuals are free to make daily labor-supply decisions, such as substitute teachers. A longer commute means that a substitute is less likely to accept an opening (Gershenson, 2013).

Lack of stable and adequate housing can have lasting effects on teacher professional development and student academic outcomes. Inadequate housing for teachers creates barriers to teacher retention, which can in turn negatively affect academic outcomes of the district's students (Papay et al., 2017). In addition to teacher turnover affecting student outcomes, it also disrupts the professional growth of new teachers. When teachers move to a different community, it interrupts the skill acquisition gained from experience and upsets teaching staff left behind who are left to train new teachers, or take the empty place of a teacher who has left (Roberts, 2004). Many studies have identified highly effective teachers as having a significant impact on student academic success. Teachers' impact can even carry over into future academic years, and more experienced teachers are shown to have larger positive effects on students (Gershenson, 2016).

Many states have pushed for more rigorous standards for teacher education and certification standards. A report released by the California Department of Education found that districts with low-income students had 25% more underqualified teachers (Department of Education, 2018). However, recruitment initiatives have been put in place in order to ensure an adequate number of teachers in classrooms during a time of declining numbers of teachers graduating from education programs (Ingersoll, 2005, Darling-Hammond et al., 2018). This includes alternative licensing, financial incentives, and out-of-field teaching (Ingersoll, 2005).

According to the Learning Policy Institute (2018), in dealing with teacher shortages, school districts in California have had to hire long-term substitutes or teachers with sub-standard credentials. Of California districts, 75% have reported that they are unable to fill all job vacancies with adequately qualified professionals. Of new hires in fall of 2017, 14% held credentials below the typical standard for hiring. Not enough qualified or credentialed teachers are graduating from programs, leaving a need to fill the vacancies with underqualified and undertrained employees (Darling-Hammond et al., 2018).

Building Affordable Housing

Land

In 1991, the Department of Housing and Urban Development released a report title “Not In My Backyard”: Removing Barriers to Affordable Housing. The report highlighted the fact that local regulatory barriers often inhibit the construction of affordable housing, and contribute to the high cost of building. It also identifies regulatory barriers that exist in suburbs as opposed to those that exist in cities. Exclusionary zoning represents the community’s opposition to new developments by preserving areas for certain uses, making affordable housing developments impossible in some areas. Suburban areas often suffer from this issue, as only single-family homes are permitted and moderate-income individuals that serve the community are priced out.

Cities and metro areas face a separate set of issues. Urban regulatory barriers to construction often include building codes that incentivize new construction and make rehabilitation of existing buildings for a new purpose very costly in order to bring them up to code. It can be up to 25% less costly to build the same development in a suburban community because of the allowance of less costly materials and regulations related to building codes. Large housing developments see the lowest level of regulation in rural areas, but present a less

convenient location for housing for those working in an urban or suburban area. The report confirmed that changes to federal, state, and local policy regulations were needed to permit the development of more affordable housing for the most vulnerable populations (Department of Housing and Urban Development, 1991).

In 2004, the Department of Housing and Urban Development released an updated report titled “Why Not In My Community?”: Removing Barriers to Affordable Housing. According to this research, excessive regulation drove up the cost of a new home in New Jersey by as much as 35%. Regulations do not represent the only issue with building affordable housing, but are a significant barrier in implementation. Local regulations have a large effect on the location of building, as well as the ability to get project approval. Increasing the daily commute for low to moderate income individuals lowers the quality of life.

Exclusionary zoning also represents a significant barrier to affordable housing. It reduces the available supply of land for construction, limits where developments can be built, and drives up housing prices. Exclusionary zoning often exists in suburban areas, and often excludes low-income individuals from residing in certain areas.

Gentrification is another barrier to the availability of affordable housing. Urban dwellings are rehabilitated for occupancy by middle class or upper-class families, driving out the existing lower income residents, which has worsened housing affordability for low-income residents (Mangin, 2014).

Funding

Federal government funding for affordable housing has decreased at the end of the 20th century, shifting the responsibility to local governments to provide for the community (Dreier & Keating, 1990). Affordable housing projects often attract attention from the community, and

government leadership must make choices for developing land while considering the politics of the area (Mueller & Schwartz, 2008). In Australia, teachers are provided with options to assist with housing, especially in rural and remote areas, to attract and retain teachers. This assistance can come in the form of housing/rental subsidies, government housing for teachers, furnished accommodations, or by covering utility costs (Roberts, 2004).

One of the most common ways to fund affordable housing developments is through LIHTC, which were established by the Tax Reform Act of 1986, and have financed millions of affordable housing units in the United States. The program of dispersing the tax credits is overseen by HUD. Using LIHTCs allows private developers to receive a tax credit on their federal income taxes if they designate units of their development as low-income rental housing (Department of Housing and Urban Development, n.d.). Often developers will build affordable housing and sell the tax credits to private investors to fund the development construction itself. Policy analysts have determined three main concerns with the LIHTC program, including 1) complexity and inefficiency, 2) concentrating poverty in communities, and 3) sustainability (Silverman & Patterson, 2001). LIHTC can be used to build affordable housing for teachers, although many developments have not used them because it puts a limit on maximum household income for occupants. Developers must be strategic in how and when they use LIHTC to ensure that they match the target population for occupying the units. In many communities the teachers' salaries may be too high to qualify for residence in the LIHTC-funded development.

Community Support

A response often heard from those in opposition to new developments is “not in my backyard (NIMBY).” Researchers have studied the impact on neighborhoods when affordable housing is implemented, and many members of the public have expressed concern when

affordable teacher housing projects are proposed for fear of it changing the community or daily lives of those who live in proximity to it. A 2014 study in Cleveland, Ohio and Charlotte, North Carolina (Woo et al., 2014) looked at community impact of using LIHTC, and found that the introduction of housing using LIHTC stimulated higher housing turnover rates in middle- and upper-class areas, while low-income areas did not see as large an effect from subsidized housing in the area. Another study presented conflicting results, concluding that the introduction of affordable housing presented no effect on crime, property values, or taxes in the area (Massey, 2012).

The 2004 report by the Department of Housing and Urban Development noted the persistence of the “Not In My Back Yard” (NIMBY) movement over the years. Suburban areas continue to block affordable housing developments, excluding low to moderate income individuals from living in suburban areas. Experts noted that over the thirteen years between the initial 1991 report and the follow-up 2004 report, not many changes had been made to suburban restrictions to multifamily affordable housing construction. A new regulation since the 1991 report has been the introduction of impact fees, putting the financial burden for start-up of a development on the developer and not the community. Local municipalities have also enacted more tax limitations, reducing the available funding for community projects. Both examples of local regulations create an even greater barrier to construction, as the front-end cost to get a project off the ground increases, and represents the local community’s role in not allowing affordable housing (Department of Housing and Urban Development, 2004).

In some places in the US, developers have focused on higher density housing near transit access as a way to build community capacity and resolve constraints that low-income individuals often face when selecting where to live. During the process of planning, a successful method that

Minneapolis used was to involve stakeholders and community members from the early stages of planning through the creation of a steering committee to partner with community members and organizations. Often in implementing affordable housing, cities and developers are met with opposition from strong neighborhood groups. By incorporating these groups into the development process, cities and developers can mitigate expected opposition to building high-density affordable housing (Forsyth et al., 2010).

FINDINGS

The following tables compare the four completed teacher housing projects. The first two projects are led and managed by the school district, and are only available to teachers who are a part of that district, along with other district staff. The second two projects were driven by developers and may be available for multiple school districts' workforce employees.

Table 2 outlines the demographics of the district, including total number of students, total number of teachers, district student to teacher ratio, area median income, average teacher salary, average monthly and yearly cost of a standard two-bedroom unit in the area, and the percentage of an average teacher's salary that goes to rent. The data demonstrates the need for affordable housing projects for teachers in the selected districts.

Table 2. Costs in Four Selected School Districts with Teacher Housing Projects

| District | Total Number of Students (2018-19) | Total Number of Teachers (2018-19) | Student/Teacher Ratio | Area Median Income (2020) | Midrange Teacher Salary (2020) | Monthly Cost of 2-Bed Unit (2020) | Yearly Cost of 2-Bed Unit (2020) | % of Avg Teacher Salary for Rent |
|-------------------------------------|------------------------------------|------------------------------------|-----------------------|---------------------------|--------------------------------|-----------------------------------|----------------------------------|----------------------------------|
| Santa Clara Unified School District | 15,387 | 618 | 24.89 | \$141,600 | \$72,668 | \$2,970 | \$35,640 | 49.04% |
| Los Angeles Unified School District | 495,255 | 21,981 | 22.53 | \$77,300 | \$65,181 | \$1,956 | \$23,472 | 36.01% |
| Newark Public School District | 40,448 | 2,794 | 14.48 | \$106,000 | \$66,125 | \$1,483 | \$17,796 | 26.91% |
| Baltimore City Public Schools | 79,297 | 4,930 | 16.08 | \$104,000 | \$59,524 | \$1,376 | \$16,512 | 27.74% |
| Baltimore County Public Schools | 113,814 | 7,394 | 15.39 | | | | | |

Sources: Department of Education, n.d.; National Center for Education Statistics, n.d.; National Center for Education Statistics, n.d.a.; National Center for Education Statistics, n.d.b.; National Center for Education Statistics, n.d.c.; National Center for Education Statistics, n.d.d.; Salary.com, n.d.a.; Salary.com, n.d.b.; Salary.com, n.d.c.; Salary.com, n.d.d.; Department of Housing and Urban Development, 2020a; Department of Housing and Urban Development, 2020b; Department of Housing and Urban Development, 2020c; Department of Housing and Urban Development, 2020d; Department of Housing and Urban Development, 2020e; Department of Housing and Urban Development, 2020f; Department of Housing and Urban Development, 2020g; Department of Housing and Urban Development, 2020h

The first school district in Table 2 is Santa Clara Unified School District (SCUSD). It is located in the City of Santa Clara with a population of 129,488, and an economy based on companies like Intel, Brocade and Nvidia. It is called the "Mission City" (City of Santa Clara,

n.d.). It has the lowest number of total students, but the highest student to teacher ratio of all five school districts (24.89:1) (National Center for Education Statistics, n.d.d.). The midrange teacher salary for SCUSD is \$72,668 (Salary.com, n.d.d.). This is approximately half the area median income (\$141,600) (Department of Housing and Urban Development, 2020h). In the Santa Clara area, the average monthly rent for a two-bedroom unit is \$2,970 (Department of Housing and Urban Development, 2020d), which is nearly half the midrange teacher's salary. An entry level teacher would spend more than 50% of his or her salary on market rate rent without affordable housing.

The second district in Table 2 is Los Angeles Unified School District (LAUSD). It serves the City of Los Angeles, with a population of 3.99 million (Census Bureau, 2019b), and a diversified economy that includes companies in the high-tech, aerospace, and manufacturing industries. (Economic and Workforce Development Department of Los Angeles, n.d.) LAUSD is the largest of all the school districts included in this report and has the second highest student to teacher ratio (22.53:1) (National Center for Education Statistics, n.d.c.) The midrange teacher salary is approximately 84% of the area median income (Department of Housing and Urban Development, 2020f), which is significantly higher than the other districts. The monthly rent for a two-bedroom apartment in the area is \$1,956 (Department of Housing and Urban Development, 2020b), which accounts for 36.01% of the average midrange teacher's salary. Only higher level or more experienced teachers may be able to affordably rent an average apartment in the area without being rent burdened.

The third district in Table 2 is Newark Public School District (NPSD). It serves the City of Newark with a population of 282,090 (Census Bureau, 2018) in the metropolitan area with New York City, and its economy is based on transportation-related industries and

telecommunication firms (City-Data.com, n.d.). It is the second smallest district out of the four in this analysis in both number of students and teachers in the district, and has the lowest student to teacher ratio (14.48). (National Center for Education Statistics, n.d.b.) The midrange teacher salary is \$65,181 (Salary.com, n.d.c.), which is approximately 60% of the area median income. (Department of Housing and Urban Development, 2020g) However, the cost of rent in the area is 26.91% of a midrange teacher's salary. (Department of Housing and Urban Development, 2020c). It is an affordable area for most educators in the district at the midrange level but may not be affordable for a new teacher.

The last two districts in Table 2 are Baltimore City Public Schools and Baltimore County Public Schools. Together they serve a population of 827,370 (U.S. Census Bureau, 2019a), and its economy is based on financial, professional, and health services, is home to Johns Hopkins Hospital and the University of Maryland Medical System (Baltimore Development Corporation, n.d.) Both districts have a lower student to teacher ratio (16.08 and 15.39, respectively). (National Center for Education Statistics, n.d., National Center for Education Statistics, n.d.a.). The midrange teacher salary is less than 50% of the area median income, (Department of Housing and Urban Development, 2020e) but the cost to rent a two-bedroom apartment in the area is less than 30% of a teacher's income. (Department of Housing and Urban Development, 2020a) While the salary is on the lower end compared to other districts, rent is much lower than the California and New Jersey districts. Teachers can afford average rent in the area, but teachers will still benefit from affordable housing, because entry level teachers may not be able to afford market rate rents.

Tables 3 and 4 outline details of each housing project. The Table 3 provides a framework for other districts to apply similar principles and structures to develop their own housing project

for district staff. Table 4 includes general development information, including name, location, year completed, landowner, number of total units, eligibility requirements for applicants, and available amenities for tenants. Table 5 includes financial information for each development, including cost to build, financial structure, funding partners, and average cost of rent to tenant in 2020.

Table 3. Teacher Housing Developments Development Information

| Housing Development | Location | Year Opened | Landowner | Number of Units | Eligibility Requirements | Available Amenities |
|---------------------|-----------------|------------------------------------|--|-----------------|--|--|
| Casa del Maestro | Santa Clara, CA | Phase I - 2002; Phase II - 2009 | SCUSD, built on surplus school property | 70 | Open to Santa Clara Unified School District teachers and workforce; Lottery; Occupants can stay for max of 5 years; Occupants do not need to be low-income | Washer/dryer in unit, clubhouse |
| Sage Park | Los Angeles, CA | 2015 | LAUSD, provided long-term ground lease to developer BRIDGE Housing | 89 | Preference to employees working within 3-mile radius; Open to general public; 30% to 60% of area median income | Indoor meeting space, outdoor patio and garden, community room, obstacle training course, club room with kitchen, laundry facilities, fitness room, computer lab, playground |
| Teachers Village | Newark, NJ | 2013 | RBH Group | 204 | 70% of units only for Newark teachers; other 30% of units open to everyone (pay full price) | 3 charter schools, day care facility, 65,000 SF of retail space, fitness centers, laundry facilities |
| Miller's Court | Baltimore, MD | 2009 | Seawell Development | 40 | Must be full-time teachers in Baltimore area to get discount; didn't use LIHTC to not limit eligibility to below 60% AMI | Fitness center, resource/business center, shared courtyard, on-site coffee shop, washer dryer in unit, resident lounge |

Sources: Aliak, 2008; Andrews, 2019; BRIDGE Housing, n.d.; Conrad, 2009; Johnston, 2015; Kimura, 2015; Langhorne, 2018; Lubenau, 2015; Marroquin, 2017; Miller's Court, n.d.; Santa Clara County Office of Education., n.d.; Strunsky, 2017; Department of Housing and Urban Development, n.d.

Table 4. Teacher Housing Development Financial Information

| Housing Development | Cost to Build | Financing Structure | Funding Partners | 2020 Avg Unit Rent |
|---------------------|---|---|---|---|
| Casa del Maestro | \$6 million for Phase I (2002), \$6 million for Phase II (2009) | Tax exempt financing structure, sale of certificates of participation | SCUSD, Education Housing Partners, Santa Clara Redevelopment Agency | \$1,430 to \$2,195 (60% of market rate) |
| Sage Park | \$28 million | LIHTC; Bank of America Merrill Lynch provided roughly \$20 million in equity; California Community Reinvestment Corporation and the Los Angeles Housing Department each provided \$3.5 million; Federal Home Loan Bank of Atlanta's Affordable Housing Program provided the remainder of the financing | Bank of America Merrill Lynch; California Tax Credit Allocation Committee; Los Angeles Housing and Community Investment Department; Los Angeles Unified School District; California Community Reinvestment Corp.; Federal Home Loan Bank of Atlanta; New Generation Fund | \$425 to \$1,222 |
| Teachers Village | \$150 million | New Market Tax Credits, Urban Transit Hub Tax Credit, Qualified School Construction Bonds, funding from the New Jersey Economic Development Authority (NJEDA) and Federal Opportunity Zone investment fund, loans from Casino Redevelopment Authority and the Urban Enterprise Zone Loan Fund, and bond financing from NJEDA and the City of Newark | Public-private partnership; New Jersey Economic Development Authority, the City of Newark, Newark Community Economic Development Corporation, the Casino Reinvestment Development Authority, TD Bank, New Jersey Community Capital, National Community Investment Fund, Building America CDE, Deutsche Bank, Chase and Carver Federal Savings Bank, Goldman Sachs, Prudential Financial | 10-15% discount on fair market rate for teachers |
| Miller's Court | \$21.1 million | New Markets Tax Credits (\$18.8 million), tax credits, state and city loans | Enterprise Community Investment; Sun Trust Bank | \$2,100 to \$2,300 (\$300-\$600 monthly discount to teaching professionals) |

Sources: Aliak, 2008; Andrews, 2019; Apartments.com, n.d.; BRIDGE Housing, n.d.; Conrad, 2009; Kimura, 2015; Langhorne, 2018; Lubenau, 2015; Marroquin, 2017; Miller's Court, n.d.; Santa Clara County Office of Education. (n.d.); Strunsky, 2017; Department of Housing and Urban Development, n.d.

Casa del Maestro in Santa Clara, California was completed in phases, with phase I completed in 2002 and phase II completed in 2009 (Conrad, 2009). It was built on surplus school property, meaning no land needed to be purchased or sold for the project. The development cost \$12 million in total to complete all 70 units. Santa Clara Unified School District issued certificates of participation (COP) in 2001 and 2006 to finance each phase. The total number of units (70) can house 11.3% of teachers in the district, although the housing is intended for other district staff as well. The lowered rent at 60% of fair market value in the area reduces the cost burden of rent to closer to 29% of a midrange teacher's salary, making rent much more

affordable for the average educator. The units of Casa del Maestro are open to Santa Clara Unified School District teachers and workforce. Approved applicants are not required to be low-income according to the area median income and are accepted through a lottery system due to the high demand. Tenants can stay at the development for up to 5 years, at which point they are vacated to make room for a new tenant (Urban Land Institute, 2012). The development was funded primarily through certificates of participation (COP). Through this structure, investors can purchase a share of the revenues, as opposed to securing revenue through a bond. The district manages their own debt portfolio and can control how their debt is restructured and refinanced throughout the development's existence. SCUSD sold certificates of participation in 2001 and 2006. In 2013 the district refunded certificates of participation. After 2013, they restructured rent to reflect a move towards a rent rate that reflects 80% of rental markets to account for expected increased expenditures. In 2015 the district sold additional certificates of participation to refinance their debt which netted \$1.74 million in savings (Santa Clara Unified School District, 2015). Phase 1 of the development was assessed to have a positive impact on teacher retention in the Santa Clara district.

Sage Park in Los Angeles, CA was completed in 2015. It is built on a Los Angeles Unified School District owned piece of land that is leased to the developer, BRIDGE Housing, through a long-term ground lease (Haber, 2015). The development is funded through Low-Income Housing Tax Credits, equity from Bank of America Merrill Lynch, California Community Reinvestment Corporation, Los Angeles Housing Department, and Federal Home Loan Bank of Atlanta's Affordable Housing Program. It consists of 89 affordable housing units and 1 manager's unit. (BRIDGE Housing, n.d.). LAUSD employees have preference for renting all units, and as of 2015, 62 of the 90 units were being rented to LAUSD employees (LAUSD

Facilities Services, 2015). The development is funded through Low-Income Housing Tax Credits, equity from Bank of America Merrill Lynch, California Community Reinvestment Corporation, Los Angeles Housing Department, and Federal Home Loan Bank of Atlanta's Affordable Housing Program. Bank America of Merrill Lynch provided \$20 million in funding for the project in exchange for 9% LIHTC. The California Community Reinvestment Corporation and the Los Angeles Housing Department provided \$3.5 million each (Department of Housing and Urban Development, n.d.a.). Rent for the units are determined based on usage of the LIHTC (Haber, 2015). The usage of LIHTC means that the income limits for eligible tenants must abide by the guidelines set forth for developments to qualify for the tax credits. Unfortunately, teachers in Los Angeles Unified School District make about 84% of the area median income (based on a midrange teacher's salary) and do not qualify for housing in Sage Park. The housing complex is only available for other district workforce members to occupy, such as cafeteria workers or janitorial staff (Lambert & Willis, 2019). Due to the financial structure, no teachers live in this development. As a result, this development has had no impact on teacher retention, but an assessment has yet to be completed on retention of other district staff.

Teachers Village in Newark, New Jersey was completed in 2013. This developer-driven project was built on land owned by RHB Group and managed by the developer. It consists of 204 units in the building complex, and cost \$150 million to complete (Teachers Village, n.d.). A portion of the units (70%) are available only to teachers in the Newark Public School District, while the remaining 30% are open to the public. Members of the public pay full price for a rented unit, and educators receive a 10-15% reduction on the fair market rent. Teachers Village was a large project in comparison to others that have been completed, and consists of a public-

private partnership to build up adequate funding (Langhorne, 2018). The development was constructed as a building complex, with three charter schools located on site, fitness centers, and 65,000 SF of retail space to create a stream of revenue for the development. Funding partners and sources included New Market Tax Credits, Urban Transit Hub Tax Credit, Qualified School Construction Bonds, funding from the New Jersey Economic Development Authority (NJEDA) and Federal Opportunity Zone investment fund, loans from Casino Redevelopment Authority and the Urban Enterprise Zone Loan Fund, and bond financing from NJEDA and the City of Newark. RBH Group, the developers of Teachers Village in New Jersey, created an investment fund under the federal Opportunity Zone Program in 2019 (Burd, 2019). The fund will promote sustainability of the project by attracting investors and provides additional funds to leverage for the development (Andrews, 2019). The development is part of RBH group's plan to revitalize the South of Market Street (SOMA) neighborhood of Newark. Of the \$150 million used to fund the project, more than \$100 million were in NMTC. Teachers Village received funding through the Urban Transit Hub Tax Credit and Qualified School Construction Bonds that were awarded by the New Jersey Economic Development Authority. Loans were also received from the Casino Reinvestment Development Authority, the city of Newark, and Newark's Economic Development Agency. Of the units in the development, 70% are occupied by teachers in the Newark area (Department of Housing and Urban Development, n.d.b.). The development's impact on teacher retention in local districts and schools has yet to be assessed.

Miller's Court is in Baltimore, Maryland opened in 2009. The project is owned by Seawall Development and cost \$21.1 million to complete. In 2007, Seawall Development bought an old building that had formerly been a tin can factory for \$2.5 million (Enterprise Community Partners, Inc., 2015). The building was renovated into apartments. Funding mainly included New

Market Tax Credits, using funding from the Enterprise Community Investment and Sun Trust Bank. The NMTC account for 27% of needed funding for the project (\$5.7 million). Other funding sources included federal housing tax equity (15%, \$3.2 million), state housing tax equity (13%, \$2.7 million), Sun Trust Bank loan (27%, \$5.8 million), Maryland state loan (3%, \$700K), Baltimore City loan (4%, \$750K), and developer resources (11%, \$2.25 million) (Enterprise Community Partners, Inc., 2015). Miller's Court has 40 units available for educators in the area. Rent for the units are fair market rate, but educators receive a \$300-\$600 discount on rent if approved for residence. District workforce that live within a 3-mile radius and other district employees outside the area are given rental preference. Residents must be full-time teachers to be eligible for discounted rent (Lubenau, 2015). No LIHTC were used in the funding of this development. The complex also has an onsite coffee shop and a resource center for teachers to use. It is located on Howard Street in the heart of Baltimore, with easy access to local restaurants and retail, and nearby public transportation (Miller's Court, n.d.).

In 2015, Enterprise Community Partners, Inc. conducted an impact case study of the development on the local community. The project was intended to accomplish more than just providing housing for teachers, but also to provide a collaborative environment for nonprofits, to revitalize the neighborhood, and to boost economic development in the area. A survey of residents in Miller's Court found that 81% of teachers living in the development felt that living there made their jobs easier, and 40% said it strengthened their commitment to their job (Enterprise Community Partners, Inc., 2015). The development's impact on teacher retention in local districts and schools has yet to be assessed.

Garnering community and stakeholder buy-in and support is crucial to the implementation of a large development project. For Casa del Maestro, gaining support did not

present a large roadblock. The project was built on unused district-owned land, presenting no cost to taxpayers. The funding structure also represented no additional cost to taxpayers or immediate redirection of school district funds, because it was financed through a tax-exempt structure using the sales of certificates of participation (Santa Clara Unified School District, 2015). The impact of the project was shown after the first phase had been in place for few years, when a report found that the attrition rate was less for teachers living in the units. After the community saw the effects of the development's implementation, phase II was completed. The project also received strong support from SCUSD superintendent and board (Holder, 2018).

Los Angeles Unified School District has built three affordable housing developments for district workforce. The complexes were originally intended to house teachers, but because of the use of federal tax dollars (LIHTC) the income guidelines of the units disqualify teachers in the area. Instead tenants from the district consist of other district workforce. This was not the result the community expected (Lambert & Willis, 2019).

During its planning and implementation, Teachers Village received support from the city of Newark (both Mayor Cory A. Booker and Governor Chris Christie attended the opening ceremony), and reported goals of not only housing teachers, but also revitalizing the neighborhood and fostering economic growth in the city. However, some residents, including the New Jersey Teacher Activist Group, opposed the inclusion of charter schools in the development instead of public schools. Some residents have expressed their concern that funding should be directed towards advancing public schools before funding additional charter schools. Additionally, residents felt they did not have enough of a platform to voice their concerns about the project relying largely on public subsidies as opposed to other forms of funding. During

public meetings of the Newark Preservation and Landmarks Committee and Planning Board, the development was presented as being fully financed by private investors (Gregor, 2012).

Miller's Court set out to incorporate the feedback from the end user in completing their building conversion development. Architects met and consulted with teachers to determine amenities that they wanted to be included. City and state officials also openly expressed their support for the project (Linskey, 2009), serving multiple purposes of housing teachers, encouraging economic development in the area, and creating a space for local nonprofits to reside and collaborate (Enterprise Community Partners, Inc., 2015). Additionally, both Teachers Village and Miller's Court required zoning change to mixed-use apartment and office/retail building, which contributed to the time from planning to implementation (Whelan, 2009).

ANALYSIS

All four developments analyzed in this research have managed to implement their project in the local community. The goal of the developments is to house district workforce, particularly teachers, in the area affordably, and the housing developments have created an avenue for districts and other local organizations to contribute to providing affordable housing for educators and district staff. Each district or developer chose its own way of implementing to fit the available funding and location best.

Implementation

The two district-led projects chose to use district-owned land for their development. For SCUSD, this means that no revenue will be created from the land use. However, considering that it was an underused plot of district-owned land, it can also be considered a savings, since the district did not have to purchase land for building housing. This method allows SCUSD to remain in control of the development and the land. In Casa del Maestro, residents can remain in their units for 5 years, and then they have to vacate. The intention is to subsidize housing to allow the residents to save to buy a house, but further research needs to be done to assess whether residents are buying houses locally, not buying a house at all, or buying a house in another location once they vacate the development (Conrad, 2009). LAUSD chose to partner with a developer and lease the land to them at a rate below fair market value. The district chose to give BRIDGE Developers a more leading role in the project as project managers, instead of managing the project implementation themselves (BRIDGE Housing, n.d.).

Land

For the two developer-led projects, each purchased a plot of land specifically for this project. Considerations to be made in purchasing land are proximity to schools and the school

district office for workforce living in the housing units, level of traffic in the area, and other types of homes in the area. Miller's Court and Teachers Village both intended to accomplish more goals than housing teachers; they both also set out to revitalize a failing neighborhood (Enterprise community Partnership, Inc, 2015; Department of Housing and Urban Development, n.d.b.). Miller's Court and Teachers Village both created a mixed-use multi-family development, incorporating retail on site to help support the development financially. Currently, Miller's Court only has a teacher resource center and coffee shop on site (Miller's Court, n.d.). Teachers Village incorporates stores and businesses onsite that are convenient to residents, and provide a service not available at all apartment complexes. Some of the services and stores available to Teachers Village residents include banks, nail salons, clothing stores, wine tasting, dentistry, performing arts studio, and many more (Teachers Village, n.d.a.)

Funding

The developments use different types of funding sources, including district funds, private investors, or government programs/assistance. Districts that elect not to rely on federal subsidies have to actively seek out funding sources and take on a financial risk of having to pay back funding (Philips, 2016). Out of the programs analyzed in this report, only Sage Park used Low-Income Housing Tax Credits, limiting the income amount for tenants of the units. The issue with using LIHTC is that many teachers will not qualify, resulting in the housing development tenant population being made up of district staff instead of teachers. The issue resulting from the usage of the tax credits is that it sets a minimum income level for eligible tenants and forces out teachers, who make too much to qualify for low-income housing Los Angeles. This is a disadvantage of using LIHTC, but the development still provides support to the district by creating affordable housing for other lower paid district employees. During implementation,

districts must pre-emptively decide whether more availability to teachers is the priority, or whether providing an affordable option to district workforce overall is the goal (Lambert & Willis, 2019).

Sustainability of development funding is vital to considering the long-term viability of the housing units. Santa Clara Unified School District issued COPs in 2001 and 2006. The 2001 COPs were refinanced in 2013. By using COPs, Santa Clara Unified School District still retains ownership of the development through a foundation. In 2015, the district sold Refunding COPs, which helped to restructure the 2006 COPs and helped to repay liabilities. They also enacted a plan for appropriate rent increases that allow rent to rise to 80% of fair market rent value. The project began at 60%, and the district elected to increase rent to ensure the financial sustainability of the project. While the units may not be as affordable for teachers as they were at the start of the project, they still provide a higher level of affordability than a standard Santa Clara area apartment. (Santa Clara Unified School District, 2015)

Community Support

Santa Clara's Casa de Maestro and Baltimore's Miller's Court were met with support from local officials and municipalities and the community. The incorporation of the community into the development and planning phases of the project gave the public an opportunity to be a part of it. Additionally, Casa del Maestro was completed in phases, creating less of a financial burden on the district all at once, and allowing the public to see the success of the first half before implementation of the second half (Holder, 2018). Miller's Court actively sought the opinion and support of teachers in the area, and had them help design the apartment layouts, and included amenities to suit the needs of the tenants (Linskey, 2009).

Challenges of Using District Land

When there is no school district owned unused land available for development, districts or developers may consider purchasing land (at a potential cost to the community) or consolidating currently owned land to create space for a development. This is exactly the issue faced by some other potential projects, such as San Jose Unified School District (SJUSD) in San Jose, California and the Cupertino School District in Cupertino, California. Both have had trouble gaining public support for the use of district-owned land for their proposed teacher housing developments (Lambert & Willis, 2019).

The SJUSD intended to relocate two existing schools to use the land for teacher housing, and they were met with public dissatisfaction. The public did not approve of tearing down a school in their community and causing many students to have to switch schools. This also represents a NIMBY issue, as many teachers felt that community members did not want the teachers living in their neighborhood. The district eventually identified nine possible locations. They then narrowed down four potential locations and conducted a feasibility study to present to the school board and the public to communicate their final decision (San Jose Unified School District, 2019). A 2019 article noted that SJUSD loses one in seven teachers every year, and those that retain their positions often have long commutes to work (Lambert & Willis, 2019).

When using district-owned land, potential projects need to consider how the public will react to their choice of land and the implications it has for current education in the district. Relocating two schools will have a large impact on current students in those schools, potentially displacing students across the district.

In 2015, Cupertino School District proposed construction of 200 affordable housing units for teachers in the district at a closed school site. The complex would provide rentals to teachers

in the district at below market rate. The district did not plan to use any taxpayer dollars in funding the project, and expressed its commitment to working with state and local teachers' unions to determine eligibility for tenants. While the district does not currently run a school on the chosen unused land, the classroom space on the chosen land is leased to private schools. In order to build the proposed project, the district would have to end the leases and force the private schools using their land to find a new space elsewhere (Vargas, 2015). A year later, in 2016, the district communicated plans not to complete the project, citing that "assumptions and misinformation permeating throughout the community have gone towards creating an environment where rather than coming together, divisions are being clearly drawn in the community" (Vargas, 2016).

Evaluation

The main lessons learned from the four analyzed projects are the importance of finding adequate space to construct the development, seeking out various funding sources that fit the intended structure of the project implementation and the importance of gaining community support before implementation.

Success in decreased teacher attrition can be seen in Casa del Maestro after the Phase I had been in place for six years. The attrition rate for teachers living in the development was found by the district to be less than one-third of those who were not living in Casa del Maestro (Aliek, 2008). Other developments cite qualitative data from tenants, noting success and satisfaction with the developments, but further assessment needs to be conducted to determine whether the projects had an effect on teacher retention (Enterprise Community Partners, Inc., 2015).

Securing land for construction in different ways worked for the programs in both methods, either through using district-owned land or purchasing land specifically for the development. All programs had success in securing adequate funding to support the project. Although some programs received opposition due to the chosen method of funding, Miller's Court in particular, the development was still able to be built (Gregor, 2012).

A failure in one of the programs was Sage Park's decision to use LIHTC in their financing structure, excluding teachers from eligibility for affordable units in the development. The program served a separate purpose of housing district workforce but was not useful in helping retain teachers through the availability of affordable housing.

In order to enhance success in future potential developments, developers should consider usage of owned land to prevent the need to purchase land, actively seeking out funding that matches the intended goal of the project, and setting up consultations with community members to gain community support.

Areas for Further Study

There are many areas to consider for further research about the development of teacher housing projects by school districts, either directly or in partnership with developers. One may be how the developments have affected teacher or workforce retention. An analysis should be completed regarding whether districts with affordable housing projects for teachers have shown an increase in teacher retention rates as a result of implementation. Districts with a high rent cost burden and with a low or neutral cost burden should be included to determine whether rental price in comparison to salary is a stronger determiner of low teacher retention. Currently, districts and developers across the United States are considering implementation of affordable housing projects to attract and retain teachers, and a study on the impact of the developments

could help provide further evidence in support of investments in construction of teacher housing projects.

Research should also be conducted on the impact of high student debt on the use of subsidized housing. Are teachers with high student debt staying in subsidized housing longer? Is the best solution in this case to create a separate program to assist teachers with repaying student debt, or is subsidized housing a good solution for these individuals?

Other demographic factors should also be studied, including marital status of those using subsidized housing and the average size of the household. Additionally, spousal income and the number of children would impact the calculation of affordability for units. In creating units to suit the end user, it would be helpful to gain a better understanding of the standard situation of a teacher using affordable housing.

CONCLUSION

This research offers an analysis of four (4) pathways to affordable housing projects for teachers implemented in California, New Jersey, and Maryland. As housing prices rise and teachers look for more affordable areas to live, areas with a higher cost of living will continue to lose teachers. High cost areas began implementing affordable housing projects for teachers and district staff in order to incentivize teachers to stay. Current projects are separated into district-led and developer-led implementation. Districts that are interested in developing subsidized or affordable teacher housing can use the data developed from the research to compare the four projects to their local factors and frame their implementation pathway using the four models for design ideas.

Affordable housing developments for educators can incorporate private funds, secure bonds, use Low-Income Housing Tax Credits or New Market Tax Credits, or secured loans, among other financial solutions. Each new development should consider the best implementation process for the area, and whether to build the development all at once or in phases. Developers and districts must consider long term financial sustainability over the life of the development when determining the funding structure and eligibility requirements, and whether such a financial structure would achieve the goal of affordable teacher housing leading to teacher retention.

To begin the process of planning a new development, a district and/or developer must consider three main components of the project: land, funding, and political/community support. The project leader should consider what land is available, whether they will purchase a plot, or if land can be donated to the project. Upon choosing land and developing a project timeline, the project leader needs to consider federal, state, and local regulations controlling land use and zoning.

In determining funding sources, the project leader should consider the target population income level, and whether LIHTC or NMTC are useful or detrimental to housing the target population. The district and/or developer can use district bonds, private donations, tax credits, investors, or other state or federal programs to fund the project. In determining rent prices and eligibility requirements, the district and/or developer must consider how to maintain low prices while still ensuring sustainability of the development.

Other areas to consider are garnering support from local elected officials and ensuring agreement from community members on project implementation. This should be considered along each step of the way, and community input may be collected to allow public involvement in the project.

REFERENCES

- Aliek, C. (2008 July 18). Casa Del Maestro – Getting Schooled. Thompson Dorfman: Urban Real Estate Developers. <https://www.thompsondorfman.com/casa-del-maestro-getting-schooled/>
- Allen, J. & Willis, D. (2019 April 17). Where teachers find affordable housing in California. EdSource. <https://edsources.org/2019/interactive-map-where-teachers-find-affordable-housing-in-california/611230>
- Barkowski, E., Nielsen, E., Noel, H., Dodson, M., Sonnenfeld, K., Ye, C., DeMonte, E., Monahan, B., & Eccleston, M. (2018 March). *Study of the Teacher Education Assistance for College and Higher Education (TEACH) Grant Program*. U.S. Department of Education. <https://www2.ed.gov/rschstat/eval/highered/teach-grant/final-report.pdf>
- Andrews, J. (2019 May 7). How startups and developers are helping teachers find affordable housing. *Curbed*. <https://www.curbed.com/2019/5/7/18535284/affordable-housing-teachers-landed-village>
- Angst, M. (2019 March 27). This Bay Area school district wants to fight an ‘epidemic’ by building teacher housing. *The Mercury News*. <https://www.mercurynews.com/2019/03/27/this-bay-area-school-district-wants-to-fight-an-epidemic-by-building-teacher-housing/>
- Apartments.com. (n.d.) Miller’s Court. Retrieved on March 10, 2020 from <https://www.apartments.com/millers-court-baltimore-md/zgfwq3x/>
- Baltimore Development Corporation. (n.d.) Economic Profile – Baltimore. Retrieved on May 6 2020 from <http://baltimoredevelopment.com/why-baltimore/economic-profile/>
- Bland, P., Church, E., & Luo, M. (2014). Strategies for Attracting and Retaining Teachers. *Administrative Issues Journal: Connecting Education, Practice, and Research*, 4(1). DOI: 10.5929/2014.4.1.2.
- BRIDGE Housing. (n.d.) Sage Park. <https://bridgehousing.com/properties/sage-park/>
- Brinklow, A. (2018 January 30). Bay Area rents soared 40 to 50 percent since 2012. *Curbed San Francisco* <https://sf.curbed.com/2018/1/30/16950444/bay-area-rent-san-francisco-oakland-san-jose>
- Burd, J. (2019 March 19). Developer of Newark’s Teachers Village launches Opportunity Zone fund. *Real Estate NJ*. <https://re-nj.com/developer-of-newarks-teachers-village-launches-opportunity-zone-fund/>
- California Legislature. (2017 September 29). SB-35 Planning and zoning: affordable housing: streamlined approval process. https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201720180SB35
- California Legislative Information. (n.d.). SB-1413 School districts: employee housing – Bill Analysis. Retrieved on February 16, 2020 from https://leginfo.legislature.ca.gov/faces/billAnalysisClient.xhtml?bill_id=201520160SB1413

- Census Bureau. (2018) Quick Facts: Newark city, New Jersey. U.S. Federal Government. <https://www.census.gov/quickfacts/fact/table/newarkcitynewjersey/HCN010212>
- Census Bureau. (2019a) Quick Facts: Baltimore county, Maryland. U.S. Federal Government. <https://www.census.gov/quickfacts/fact/table/baltimorecitymaryland/HCN010212>
- Census Bureau. (2019b) Quick Facts: Los Angeles city, California. U.S. Federal Government. <https://www.census.gov/quickfacts/losangelescitycalifornia>
- City-Data.com. (n.d.) Newark: Economy. <http://www.city-data.com/us-cities/The-Northeast/Newark-Economy.html>
- City of San Jose. (2006). Zoning Process. <https://www.sanjoseca.gov/home/showdocument?id=15513>
- City of San Jose. (n.d.). Housing Market. <https://www.sanjoseca.gov/your-government/departments/housing/data/housing-market>
- Civil Grand Jury of Santa Clara County. (2018 June 21) Affordable Housing Crisis: Density is Our Destiny. Superior Court of Santa Clara County. http://www.sccourt.org/court_divisions/civil/cgj/2018/BMRH%20Rpt%202018-06-19%20REVISED%20FINAL.pdf
- Conrad, K. (2009 April 12). Casa del Maestro – Santa Clara Affordable Housing Program Gets A+ From Teachers. Thompson Dorfman: Urban Real Estate Developers. <https://www.thompsondorfman.com/casa-del-maestro-santa-clara-affordable-housing-program-gets-a-from-teachers/>
- County of San Luis Obispo. (2018 March 21). Permit Types and Commonly Used Definitions. <https://www.slocounty.ca.gov/getattachment/cd417403-d527-43ee-a92b-00c6efca1806/Permit-Types-and-Commonly-Used-Definitions.aspx>
- Darling-Hammond, L., Sutch, L., & Carver-Thomas, D. (2018). Teacher Shortages in California: Status, Sources, and Potential Solutions. Palo Alto, CA: Learning Policy Institute.
- Department of Education. (2018 December 7). California State Plan to Ensure Equitable Access to Excellent Educators. State Government of California. <https://www.documentcloud.org/documents/6556897-Teacher-CA-EquityPlan2017.html>
- Department of Education. (2019 July 17). Average Salaries & Expenditure Percentage. State Government of California. <https://www.cde.ca.gov/fg/fr/sa/cefavg salaries.asp>
- Department of Education. (n.d.) Certificated Staff by Ethnicity for 2018-19: Santa Clara Unified Teachers. State Government of California. <https://data1.cde.ca.gov/dataquest/Staff/StaffByEth.aspx?cSelect=4369674--Santa%20Clara%20Unified&cYear=2018-19&cChoice=DstTeach&cType=T&cGender=&cLevel=District&cTopic=Paif&myTimeFrame=S>
- Department of Housing and Community Development. (n.d.). California's 2017 Housing Package. State Government of California. <http://www.hcd.ca.gov/policy-research/lhp.shtml>

Department of Housing and Community Development. (n.d.a.). Transit-Oriented Development (TOD) Housing Program. State Government of California. <https://www.hcd.ca.gov/grants-funding/active-funding/tod.shtml#guidelines>

Department of Housing and Community Development, Division of Housing Policy Development. (2019 May 16). State Income Limits for 2019. State Government of California. <http://hcd.ca.gov/grants-funding/income-limits/state-and-federal-income-limits/docs/Income-Limits-2019.pdf>

Department of Housing and Urban Development. (1991). “Not In My Backyard”: Removing Barriers to Affordable Housing. U.S. Federal Government. https://www.huduser.gov/Publications/pdf/NotInMyBackyard_508.pdf

Department of Housing and Urban Development. (2004). “Why Not In My Community”: Removing Barriers to Affordable Housing. U.S. Federal Government. <https://www.huduser.gov/portal/Publications/wnioc.pdf>

Department of Housing and Urban Development. (2008). Accessory Dwelling Units: Case Study. U.S. Federal Government. <https://www.huduser.gov/portal/publications/adu.pdf>

Department of Housing and Urban Development (2012). FY 2012 Fair Market Rent Documentation System. U.S. Federal Government. https://www.huduser.gov/portal/datasets/fmr/fmrs/FY2012_code/2012summary.odn

Department of Housing and Urban Development (2019). FY 2019 Fair Market Rent Documentation System. U.S. Federal Government. https://www.huduser.gov/portal/datasets/fmr/fmrs/FY2019_code/2019summary.odn

Department of Housing and Urban Development (2020a). FY2020 Fair Market Rent – Baltimore, Maryland. U.S. Federal Government. https://www.huduser.gov/portal/datasets/fmr/fmrs/FY2020_code/2020summary.odn

Department of Housing and Urban Development (2020b). FY2020 Fair Market Rent – Los Angeles, California. U.S. Federal Government. https://www.huduser.gov/portal/datasets/fmr/fmrs/FY2020_code/2020summary.odn

Department of Housing and Urban Development (2020c). FY2020 Fair Market Rent – Newark, New Jersey. U.S. Federal Government. https://www.huduser.gov/portal/datasets/fmr/fmrs/FY2020_code/2020summary.odn

Department of Housing and Urban Development (2020d). FY2020 Fair Market Rent – Santa Clara, California. U.S. Federal Government. https://www.huduser.gov/portal/datasets/fmr/fmrs/FY2020_code/2020summary.odn

Department of Housing and Urban Development (2020e). FY2020 Income Limits Summary – Baltimore, Maryland. U.S. Federal Government. <https://www.huduser.gov/portal/datasets/il/il2020/2020summary.odn>

Department of Housing and Urban Development (2020f). FY2020 Income Limits Summary – Los Angeles, California. U.S. Federal Government. <https://www.huduser.gov/portal/datasets/il/il2020/2020summary.odn>

- Department of Housing and Urban Development (2020g). FY2020 Income Limits Summary – Newark, New Jersey. U.S. Federal Government.
<https://www.huduser.gov/portal/datasets/il/il2020/2020summary.odn>
- Department of Housing and Urban Development (2020h). FY2020 Income Limits Summary – Santa Clara, California. U.S. Federal Government.
<https://www.huduser.gov/portal/datasets/il/il2020/2020summary.odn>
- Department of Housing and Urban Development (n.d.). About Good Neighbor Next Door. U.S. Federal Government.
https://www.hud.gov/program_offices/housing/sfh/reo/goodn/gnndabot
- Department of Housing and Urban Development (n.d.a.). The Los Angeles Unified School District Provides Employee Housing in Sage Park Apartments. U.S. Federal Government.
<https://www.huduser.gov/portal/pdredge/pdr-edge-inpractice-030617.html>
- Department of Housing and Urban Development (n.d.b.). A Community of Teachers Helps Revitalize Newark, New Jersey. U.S. Federal Government.
<https://www.huduser.gov/portal/pdredge/pdr-edge-inpractice-040416.html>
- Department of Economic and Workforce Development. (n.d.) Los Angeles at a Glance. City of Los Angeles. <https://ewddlacity.com/index.php/opportunity-zones-in-la/los-angeles-at-a-glance>
- Enterprise Community Partners, Inc. (2014). *Impact of Affordable Housing on Families and Communities: A Review of the Evidence Base*. <https://homeforallsmc.org/wp-content/uploads/2017/05/Impact-of-Affordable-Housing-on-Families-and-Communities.pdf>
- Enterprise Community Partners, Inc. (2015 March). *Miller's Court, Baltimore: Impact Case Study*. <https://www.enterprisecommunity.org/download?fid=452&nid=3926>
- Forsyth, A., Nicholls, G., & Raye, B. (2010). Higher Density and Affordable Housing: Lessons from the Corridor Housing Initiative. *Journal of Urban Design*, 15(2), 269-284. DOI: 10.1080/13574801003638079
- Gan, X., Zuo, J., Wu, P., Chang, R., & Wen, T. (2017). How affordable housing becomes more sustainable? A stakeholder study. *Journal of Cleaner Production*, 162.
<https://doi.org/10.1016/j.jclepro.2017.06.048>
- Gershenson, S. (2013). The causal effect of commute time on labor supply: Evidence from a natural experiment involving substitute teachers. *Transportation Research Part A*, 54, 127-140. <https://doi.org/10.1016/j.tra.2013.07.010>
- Gershenson, S. (2016). Linking Teacher Quality, Student Attendance, and Student Achievement. *Education Finance and Policy*, 11(2), p 125-149. https://doi.org/10.1162/EDFP_a_00180
- Goldhaber, D., & Cowan, J. (2014). Excavating the teacher pipeline: Teacher preparation programs and teacher attrition. *Journal of Teacher Education*, 65(5), 449-462.
doi:10.1177/0022487114542516

- Gregor, A. (2012 March 7). Newark Project Aims to Link Living and Learning. *New York Times*. <https://www.nytimes.com/2012/03/07/realestate/commercial/newark-project-aims-to-link-living-and-learning.html>
- Haber, S. (2015 April 23). LAUSD Celebrates Grand Opening of Sage Park Affordable Apartments for Families. Los Angeles Unified School District. <https://home.lausd.net/apps/news/article/460816>
- Harmon, H. (2001). Attracting and Retaining Teachers in Rural Areas. Paper presented at the Annual Meeting of the American Association of Colleges for Teacher Education held in Dallas, TX, March 1-4, 2001.
- Holder, S. (2018). Why Are So Many People In San Jose Fighting Housing for Teachers? *City Lab*. <https://www.citylab.com/equity/2018/10/san-jose-trying-build-low-cost-housing-teachers/572665/>
- Horn, J. G. (1985). Recruitment and preparation of quality teachers for rural schools. Paper presented at the National Rural Education Forum held in Kansas City, MO, August 12-14.
- Hughes, G. D. (2012). Teacher retention: Teacher characteristics, school characteristics, organizational characteristics, and teacher efficacy. *The Journal of Educational Research*, 105(4), 245-255. doi:10.1080/00220671.2011.584922
- Ingersoll, R. M. (2001). Teacher turnover and teacher shortages: An organizational analysis. *American Education Research Journal*, 38, 499–534. doi:10.3102/00028312038003499
- Ingersoll, R. M. (2005). The Problem of Underqualified Teachers: A Sociological Perspective. *Sociology of Education*, 78(2), 175-178. <https://doi.org/10.1177/003804070507800206>
- Johnston, A. (2015 November 23). How one Bay Area school district is making sure teachers aren't priced out. *KALW*. <https://www.kalw.org/post/how-one-bay-area-school-district-making-sure-teachers-aren-t-priced-out#stream/0>
- Joint Center for Housing Studies of Harvard University. (2019). *The State of the Nation's Housing Crisis*. https://www.jchs.harvard.edu/sites/default/files/Harvard_JCHS_State_of_the_Nations_Housing_2019.pdf
- Kendall, M. (2019a). Facebook donates \$25 million to build Bay Area teacher housing. *The Mercury News*. <https://www.mercurynews.com/2019/10/17/facebook-donates-25-million-to-build-bay-area-teacher-housing/>
- Kendall, M. (2019b). Apple makes massive housing splash with \$2.5 billion pledge. *The Mercury News*. https://www.mercurynews.com/2019/11/04/apple-pledges-2-5-billion-to-combat-california-housing-crisis/?utm_source=litrak&utm_medium=email&utm_term=https%3a%2f%2fwww.mercurynews.com%2f2019%2f11%2f04%2fapple-pledges-2-5-billion-to-combat-california-housing-crisis%2f&utm_campaign=bang-sjmn-nl-breaking-news-alerts-nl&utm_content=alert
- Kim, C. (2008). Commuting time stability: a test of a co-location hypothesis. *Transportation Research Part A*, 42 (3), pp. 524-544

- Kimura, D. (2015 July 13). Sage Park Helps Meet the Housing Needs of LA School Employees. *Affordable Housing Finance*. https://www.housingfinance.com/developments/sage-park-helps-meet-the-housing-needs-of-la-school-employees_o
- Lemke, J. C. (1994). Teacher induction in rural and small school districts. Proceedings of the annual national conference of the American Council on Rural Special Education (ACRES). Conference held in Austin, Texas, March 23-26, 1994.
- Lambert, D., & Willis, D. (2019 May 26). In need of teacher housing, more California school districts building their own. *The Mercury News*. <https://www.mercurynews.com/2019/05/26/in-need-of-teacher-housing-more-california-school-districts-building-their-own/>
- Langhorne, E. (2018 June 8). Teachers Village: One City's Innovative Solution to the Problem of Teacher Retention. *Forbes*. <https://www.forbes.com/sites/emilylanghorne/2018/06/08/teachers-village-one-citys-innovative-solution-to-the-problem-of-teacher-retention/#76c480cf63b7>
- Los Angeles Unified School District. (n.d.). Affordable Housing for LAUSD Employees. <https://home.lausd.net/apps/news/article/380816>
- LAUSD Facilities Services. (2015 May 7). Workforce Housing – Affordable Housing. Los Angeles Board of Education. <https://boe.lausd.net/sites/default/files/05-07-15BFAWorkforceHousingUpdate.pdf>
- Linskey, A. (2009 September 15). City, state officials praise project housing teachers, nonprofit offices. *Baltimore Sun*. <https://search.proquest.com/docview/406234680?accountid=41719>
- Lubenau, A. (2015 March 27). A Baltimore Tin Can Plant Transformed into a Community Hub. *Metropolis*. <https://www.metropolismag.com/architecture/preservation/site-visit-a-baltimore-tin-can-plant-transformed-into-a-community-hub/>
- Marroquin, M. (2017 October 10). RBH opens Teachers Village in downtown Newark. *NJ Biz*. <https://njbiz.com/rbh-opens-teachers-village-in-downtown-newark/> (Teachers Village)
- Massey, D. (2012). Lessons from Mount Laurel: The benefits of affordable housing for all Concerned. *Poverty and Race*, 21(3). <http://search.proquest.com.libaccess.sjlibrary.org/docview/1020127962?accountid=10361>
- McClure, K. (2019). The allocation of rental assistance resources: The paradox of high housing costs and high vacancy rates. *International Journal of Housing Policy*, 19, 69–94. doi:10.1080/19491247.2017.1362756
- Milanowski, A., & Odden, A. (2007). A new approach to the cost of teacher turnover. Seattle, WA: School Finance Redesign Project, Center of Reinventing Public Education.
- Miller's Court. (n.d.) Apartments. <https://millerscourt.com/#!/apartments>
- National Center for Education Statistics. (n.d.) Baltimore County Public Schools. https://nces.ed.gov/ccd/districtsearch/district_detail.asp?ID2=2400120

- National Center for Education Statistics. (n.d.a.) Baltimore City Public Schools.
https://nces.ed.gov/ccd/districtsearch/district_detail.asp?ID2=2400090
- National Center for Education Statistics. (n.d.b.) Newark Public School District.
https://nces.ed.gov/ccd/districtsearch/district_detail.asp?Search=2&details=1&ID2=3411340&DistrictID=3411340
- National Center for Education Statistics. (n.d.c.) Los Angeles Unified School District.
https://nces.ed.gov/ccd/districtsearch/district_detail.asp?ID2=0622710
- National Center for Education Statistics. (n.d.d.) Santa Clara Unified School District.
https://nces.ed.gov/ccd/districtsearch/district_detail.asp?ID2=0635430
- National Housing & Rehabilitation Association (2016 September 7). Work Force Housing for Teachers Signed by Governor in California.
<https://www.housingonline.com/2016/09/07/work-force-housing-teachers-awaits-governors-approval-california/>
- National Low Income Housing Coalition. (n.d.) Why We Care – Affordable Housing.
<https://nlihc.org/explore-issues/why-we-care/problem>
- Nguyen, C. (2019 October 21). Santa Clara County tackles regional housing crisis with more affordable housing projects. *ABC7 News*. <https://abc7news.com/society/santa-clara-county-tackles-regional-housing-crisis/5636588/>
- Palomino, J. (2016 May 14). Teacher Housing Helps Educators Stay Put Amid Silicon Valley Boom. *San Francisco Chronicle*. <https://www.sfchronicle.com/education/article/Teacher-housing-helps-educators-stay-put-amid-7463584.php>
- Papay, J., Bacher-Hicks, A., Page, L., & Marinell, W. (2018) The Challenge of Teacher Retention in Urban Schools: Evidence of Variation from a Cross-Site Analysis. *Educational Researcher*, 46(8). DOI: 10.3102/0013189X17735812
- Philips, A. (2016 October 19). Apartments for teachers fill up -- without them; Faculty earn too much for L.A. Unified's low-cost units. *Los Angeles Times*.
<https://search.proquest.com/docview/1829974149?accountid=41719>
- Podolsky, A., & Sutchter, L. (2016). California teacher shortages: A persistent problem. (Brief). Palo Alto, CA: Learning Policy Institute.
- Roberts, P. (20014). Staffing an empty schoolhouse: attracting and retaining teachers in rural, remote and isolated communities. Australia: NSW Teachers Federation.
<https://files.eric.ed.gov/fulltext/ED507343.pdf>
- Salary.com. (n.d.a.) Public School Teacher Salary in Baltimore, MD.
<https://www.salary.com/research/salary/benchmark/public-school-teacher-salary/baltimore-md>
- Salary.com. (n.d.b.) Public School Teacher Salary in Los Angeles, CA.
<https://www.salary.com/research/salary/benchmark/public-school-teacher-salary/los-angeles-ca>

- Salary.com. (n.d.c.) Public School Teacher Salary in Newark, New Jersey.
<https://www.salary.com/articles/complete-list-of-masks-that-protect-you-from-coronavirus/>
- Salary.com. (n.d.d.) Public School Teacher Salary in Santa Clara, CA.
<https://www.salary.com/research/salary/benchmark/public-school-teacher-salary/santa-clara-ca>
- San Jose Unified School District. (2019 September 23). Special Session Board Meeting.
<https://agendaonline.net/public/Meeting.aspx?AgencyID=123&MeetingID=20136&AgencyTypeID=0&IsArchived=True>
- San Jose Unified School District. (n.d.). Employee Housing. <https://www.sjUSD.org/who-we-are/employee-housing/>
- Santa Clara County Office of Education. (n.d.) Santa Clara County Educator Housing Resource Booklet. <https://www.sccoe.org/resources/teachers/Documents/Housing-Booklet-Optimized.pdf>
- Santa Clara Unified School District. (2015). Casa Del Maestro Debt Refinancing and Restructuring Results. Santa Clara Unified Board of Education.
<https://agendaonline.net/public/Meeting.aspx?AgencyID=209&MeetingID=2740&AgencyTypeID=1&IsArchived=True>
- Seifert, E. H. (1982). Recruitment and strategies for small schools. Paper presented at the Annual Meeting of the American Association of School Administrators held in New Orleans, LA, February 26-March 1, 1982.
- Silverman, R., & Patterson, M. (2001). Fair and Affordable Housing in the United States. Koninklijke Brill NV: Leiden, The Netherlands.
- Strunsky, S. (2017 January 23). Newark's \$150M Teachers Village Gradually Coming to Life. NJ.
https://www.nj.com/essex/2017/01/teachers_village_in_newark_gradually_filling_in.html
- Tax Policy Center (n.d.a.). *Key Elements of the U.S. Tax System – Low-Income Housing Tax Credits*. <https://www.taxpolicycenter.org/briefing-book/what-low-income-housing-tax-credit-and-how-does-it-work>
- Tax Policy Center. (n.d.b.) *Key Elements of the U.S. Tax System – New Market Tax Credits*. <https://www.taxpolicycenter.org/briefing-book/what-new-markets-tax-credit-and-how-does-it-work>
- Teachers Village. (n.d.). About Teachers Village. <https://www.teachers-village.com/about>
- Teachers Village. (n.d.a.) Retail Teachers Village. <https://www.teachers-village.com/retail>
- Theobald, N., & Gritz, R. (1996). The effects of school district spending priorities on the exit paths of beginning teachers leaving the district. *Economics of Education Review*, 15(1), 11-22. [https://doi.org/10.1016/0272-7757\(95\)00022-4](https://doi.org/10.1016/0272-7757(95)00022-4)
- Vargas, R. (2015 December 8). Cupertino Union School District to Build Over 200 Affordable Housing Units for Teachers. *NBC Bay Area*.

<https://www.nbcbayarea.com/news/local/cupertino-union-school-district-to-build-over-200-affordable-housing-units-for-teachers/1994172/>

Vargas, R. (2016 June 1). Cupertino Union School District Abandons Teacher Housing Project, Cites 'Tensions'. *NBC Bay Area*. <https://www.nbcbayarea.com/news/local/cupertinouion-school-district-abandons-teacher-housing-project-cites-tensions/1999689/>

Whelan, R. (2009). Baltimore-based Seawall Development converting historic buildings into teacher apartments. *The Daily Record*. <https://search.proquest.com/docview/390066405?accountid=41719>

Woo, A., Joh, K., & Van Zandt, S. (2014) Impacts of the Low-Income Housing Tax Credit Program on Neighborhood Housing Turnover. *Urban Affairs Review*, 52(2), 247-279. DOI: 10.1177/1078087414561824